West Virginia CTE

Intro to Agriculture, Food, and Natural Resources

Demonstrate understanding of agribusiness (e.g., SAE, expenses). 0101.1	1 **Identify and describe the types of agribusiness ownership.** 0101.1.1
	2 **Calculate return on investment.** 0101.1.2
	3 **Identify methods of marketing agricultural commodities, products, and services in domestic and international markets and create a marketing plan for an agricultural commodity, product, or service.** 0101.1.3
	4 **Define basic finance terms and provide examples - personal inventory, net worth, income, expense.** 0101.1.4
	5 **Define and develop a Supervised Agricultural Experience Program (SAE).** 0101.1.5
	6 **Define the Four Ps of marketing (product, place, price, and promotion).** 0101.1.6
	7 **Create an advertisement for an agricultural product.** 0101.1.7
	8 **Research local supply and demand of agricultural products.** 0101.1.8
	9 **Create a plan and begin development for their own agricultural enterprises (SAE).** 0101.1.9
Demonstrate understanding of animal systems (e.g., breeds of livestock, anatomy). 0101.2	1 **Identify and describe the origin, significance, distribution, and domestication of animal systems.** 0101.2.1
	2 **Recite and identify the common and scientific names of major animal species.** 0101.2.2
	3 **Identify and differentiate between breeds of livestock.** 0101.2.3
	4 **Identify anatomical parts of animals.** 0101.2.4
	5 **Define livestock terminology (steer, heifer, barrow, gilt, etc.).** 0101.2.5
	6 **Identify, draw, and label parts of animal cells.** 0101.2.6
	7 **Define and identify animal health disorders and provide recommendations for common preventions and treatment.** 0101.2.7

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	8 **Explain the importance of biosecurity in the animal industry.** 0101.2.8
	9 **Identify common feedstuffs and their nutritional value.** 0101.2.9
	10 **Explain the difference between animal welfare and animal rights and their value to the animal industry.** 0101.2.10
	11 **Identify and describe the facilities needed to house and produce animal species safely and efficiently.** 0101.2.11
	12 **Describe the effects of animal agriculture on the environment.** 0101.2.12
	13 **Diagram a typical animal cell and identify the organelles.** 0101.2.13
	14 **Practice administering injections.** 0101.2.14
	15 **Perform a basic health exam on a live animal.** 0101.2.15
	16 **Debate the issues associated with animal welfare and animal rights.** 0101.2.16
Demonstrate understanding of agriculture innovation and technology. 0101.3	1 **Define agricultural biotechnology.** 0101.3.1
	2 **Identify and describe how biotechnology is applied in the agriculture industry.** 0101.3.2
	3 **Identify and describe significant innovations and inventions in the history of agriculture and their impacts on the industry.** 0101.3.3
	4 **Utilize agricultural related technology and equipment.** 0101.3.4
	5 **Identify and debate the issues associated with biotechnology use in the agriculture industry.** 0101.3.5
	6 **Research current agricultural products impacted by biotechnology practices.** 0101.3.6
Demonstrate understanding of food products and processing (e.g., protein sources, food preservation). 0101.4	1 **Identify key advancements in the history of animal and food processing.** 0101.4.1
	2 **Discuss the importance of food labeling to consumers.** 0101.4.2
	3 **Define and differentiate the quality and yield grades of food products and what they mean to the consumer.** 0101.4.3
	4 **Identify food products derived from meat, egg, poultry, fish, and dairy products.** 0101.4.4
	5 **Identify food products derived from fruit and vegetables.** 0101.4.5
	dentify food products derived from grains, legumes, and oilseeds. 0101.4.6

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	7 Identify common weights and measures in the food production and processing industry and apply the use of those measurements. 0101.4.7
	8 Identify and describe methods of food preservation. 0101.4.8
	9 Produce a food product (cheese, sausage, sauerkraut, etc.). 0101.4.9
	10 Compare and contrast various food labels. 0101.4.10
	11 Conduct a food preservation experiment. 0101.4.11
Demonstrate understanding of natural resources (e.g., renewable resources). 0101.5	1 Identify, define, and describe characteristics of various ecosystems. 0101.5.1
	2 Identify, define, and describe characteristics of various renewable resources. 0101.5.2
	3 Identify, define, and describe characteristics of various nonrenewable resources. 0101.5.3
	4 Identify, define, and describe characteristics of various alternative energy sources. 0101.5.4
Demonstrate understanding of plant systems (e.g., plant parts, processes, soil). 0101.6	1 Identify parts of a plant. 0101.6.1
	2 Describe the functions of plant parts. 0101.6.2
	3 Define components of soil and how soil is formed. 0101.6.3
	4 Identify and describe the nutritional requirements for plant growth. 0101.6.4
	5 Describe the processes of the following plant physiologies; photosynthesis, reproduction, respiration, and transpiration. 0101.6.5
	6 Diagram a typical plant cell and identify plant cell organelles and their functions. 0101.6.6
	7 Identify the components and explain the functions of plant roots. 0101.6.7
	8 Identify the components and explain the functions of plant stems. 0101.6.8
	9 Identify the components and explain the functions of plant leaves. 0101.6.9
	10 Identify the components and explain the functions of plant flowers. 0101.6.10
	11 Conduct soil samples and soil tests. 0101.6.11
	12 Interpret soil test results and determine fertilizer and applications needs. 0101.6.12

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	13 Identify agriculturally important plants by common names. 0101.6.13
Demonstrate understanding of power, structural, and technical systems (e.g., measurement). 101.7	1 Identify units of weight, volume, length, and temperature. 0101.7.1
	2 Calculate basic math practices used in Power, Structural and Technical Systems. 0101.7.2
	3 Identify basic hand tools and demonstrate their proper uses in an agricultural setting. 0101.7.3
	4 Add, subtract, multiply, and divide whole numbers, with and without a calculator. 0101.7.4
	5 Use a ruler, a metric ruler, and a measuring tape to measure. 0101.7.5
	6 Add, subtract, multiply, and divide fractions. 0101.7.6
	7 Add, subtract, multiply, and divide decimals with and without a calculator. 0101.7.7
	8 Convert decimals to percentages and percentages to decimals. 0101.7.8
	9 Convert fractions to decimals and decimals to fraction. 0101.7.9
	10 Properly and safely use hand tools. 0101.7.10
	11 Construct a project using hand tools. 0101.7.11
Demonstrate knowledge of leadership development through FFA (e.g., motto, parliamentary procedure, official dress). 0101.8	1 Explain the components and importance of the Three Circle Model of Agricultural Education. 0101.8.1
	2 Recite the FFA Creed. 0101.8.2
	3 Recite the FFA Motto. 0101.8.3
	4 Research the important dates and events in FFA History. 0101.8.4
	5 Perform basic parliamentary procedure operations (make a motion, second a motion, debate a motion). 0101.8.5
	6 Participate in FFA leadership opportunities offered at the local, state, and national level. 0101.8.6
	7 Participate in FFA intracurricular competitive opportunities at the local, state, and national level. 0101.8.7
	8 Participate in community service and career awareness activities at the local, state, and national level. 0101.8.8